VOLUME 32—1998

Author Index

A

AGBEGHA, GERALD Y., RONALD H. BALLOU, AND KAMLESH MATHUR, *Optimizing Auto-Carrier Loading*, 174–188

B

BALLOU, RONALD H., *see* AGBEGHA, BALLOU, AND MATHUR, 174–188

BARD, JONATHAN F., LIU HUANG, PATRICK JAILLET, AND MOSHE DROR, *A Decomposition Approach to the Inventory Routing Problem with Satellite Facilities*, 189–203

BARNHART, CYNTHIA AND RAJESH G. SHENOI, *An Approximate Model and Solution Approach for the Long-Haul Crew Pairing Problem*, 221–231

BARNHART, CYNTHIA, *see* NEWTON, BARNHART, AND VANCE, 330–345

BARNHART, CYNTHIA, NATASHIA L. BOLAND, LLOYD W. CLARKE, ELLIS L. JOHNSON, GEORGE L. NEMHAUSER, AND RAJESH G. SHENOI, *Flight String Models for Aircraft Fleeting and Routing*, 208–220

BOLAND, NATASHIA L., *see* BARNHART, BOLAND, CLARKE, JOHNSON, NEMHAUSER, AND SHENCI, 208–220

BOSTEL, NATHALIE AND PIERRE DEJAX, *Models and Algorithms for Container Allocation Problems on Trains in a Rapid Transshipment Shunting Yard*, 370–379

BRÄNNLUND, U., P. O. LINDBERG, A. NÖU, AND J.-E. NILSSON, *Railway Timetabling using Lagrangian Relaxation*, 358–369

C

CARVALHO, TASSIO A., *see* POWELL AND CARVALHO, 90–109; POWELL AND CARVALHO, 110–126

CASSADY, C. RICHARD AND JOHN E. KOBZA, *A Probabilistic Approach to Evaluate Strategies for Selecting a Parking Space*, 30–42

CHEN, CHUEN-YIH, *see* CHEUNG AND CHEN, 142–162

CHEUNG, RAYMOND K. AND CHUEN-YIH CHEN, *A Two-Stage Stochastic Network Model and Solution Methods for the Dynamic Empty Container Allocation Problem*, 142–162

CLARKE, LLOYD W., *see* BARNHART, BOLAND, CLARKE, JOHNSON, NEMHAUSER, AND SHENOI, 208–220

CORDEAU, JEAN-FRANÇOIS, PAOLO TOTH, AND DANIELE VIGO, *A Survey of Optimization Models for Train Routing and Scheduling*, 380–404

D

DAGANZO, CARLOS F., *Queue Spillovers in Transportation Networks with a Route Choice*, 3–11

DEJAX, PIERRE, *see* BOSTEL AND DEJAX, 370–379

DESROSIERS, JACQUES, *see* GAMACHE, SOUMIS, VILLENEUVE, DESROSIERS, AND GÉLINAS, 246–255; STOJKOVIĆ, SOUMIS, AND DESROSIERS, 232–245

DROR, MOSHE, *see* BARD, HUANG, JAILLET, AND DROR, 189–203

F

FONDACCI, RÉMY, OLIVIER GOLDSCHMIDT, AND VINCENT LETROUIT, *Combinatorial Issues in Air Traffic Optimization*, 256–267

G

GAMACHE, MICHEL, FRANÇOIS SOUMIS, DANIEL VILLENEUVE, JACQUES DESROSIERS, AND ÉRIC GÉLINAS, *The Preferential Bidding System at Air Canada*, 246–255

GÉLINAS, ÉRIC, *see* GAMACHE, SOUMIS, VILLENEUVE, DESROSIERS, AND GÉLINAS, 246–255

GENDREAU, MICHEL, *see* NGUYEN, PALLOTTINO, AND GENDREAU, 54–64

GENDREAU, MICHEL, *see*PESANT, GENDREAU, POTVIN, AND ROUSSEAU, 12–29

GOLDSCHMIDT, OLIVIER, *see* FONDACCI, GOLDSCHMIDT, AND LETROUIT, 256–267

H

HIGGINS, A. AND E. KOZAN, *Modeling Train Delays in Urban Networks*, 346–357

HOLMBERG, KAJ, MARTIN JOBORN, AND JAN T. LUNDGREN, *Improved Empty Freight Car Distribution*, 163–173

HUANG, LIU, *see* BARD, HUANG, JAILLET, AND DROR, 189–203

J

JAILLET, PATRICK, *see* BARD, HUANG, JAILLET, AND DROR, 189–203

JOBORN, MARTIN, *see* HOLMBERG, JOBORN, AND LUNDGREN, 163–173

JOHNSON, ELLIS L., *see* BARNHART, BOLAND, CLARKE, JOHNSON, NEMHAUSER, AND SHENOI, 208–220

K

KESKINOCAK, PINAR AND SRIDHAR TAYUR, *Scheduling of Time-Shared Jet Aircraft*, 277–294

KLEYWEGT, ANTON J. AND JASON D. PAPASTAVROU, *Acceptance and Dispatching Policies for a Distribution Problem*, 127–141

KOBZA, JOHN E., *see* CASSADY AND KOBZA, 30–42

KOZAN, E., *see* HIGGINS AND KOZAN, 346–357

L

LETROUIT, VINCENT, *see* FONDACCI, GOLDSCHMIDT, AND LETROUIT, 256–267

LINDBERG, P. O., *see* BRÄNNLUND, LINDBERG, NÖU, AND NILSSON, 358–369

LUNDGREN, JAN T., *see* HOLMBERG, JOBORN, AND LUNDGREN, 163–173

M

MATHUR, KAMLESH, *see* AGBEGHA, BALLOU, AND MATHUR, 174–188

N

NAVAZIO, LISA AND GIORGIO ROMANIN-JACUR, *The Multiple Connections Multi-Airport Ground Holding Problem: Models and Algorithms*, 268–276

NEMHAUSER, GEORGE L., *see* BARNHART, BOLAND, CLARKE, JOHNSON, NEMHAUSER, AND SHENOI, 208–220

NEWTON, HARRY N., CYNTHIA BARNHART, AND PAMELA H. VANCE, *Constructing Railroad Blocking Plans to Minimize Handling Costs*, 330–345

NGUYEN, SANG, STEFANO PALLOTTINO, AND MICHEL GENDREAU, *Implicit Enumeration of Hyperpaths in a Logit Model for Transit Networks*, 54–64
NILSSON, J.-E., *see* BRÄNNLUND, LINDBERG, NÕU, AND NILSSON, 358–369
NOBERT, YVES AND JACQUES ROY, *Freight Handling Personnel Scheduling at Air Cargo Terminals*, 295–301
NOON, CHARLES E., *see* ZHAN AND NOON, 65–73
NÕU, A., *see* BRÄNNLUND, LINDBERG, NÕU, AND NILSSON, 358–369

P

PALLOTTINO, STEFANO, *see* NGUYEN, PALLOTTINO, AND GENDREAU, 54–64
PAPASTAVROU, JASON D., *see* KLEYWEGT AND PAPASTAVROU, 127–141
PESANT, GILLES, MICHEL GENDREAU, JEAN-YVES POTVIN, AND JEAN-MARC ROUSSEAU, *An Exact Constraint Logic Programming Algorithm for the Traveling Salesman Problem with Time Windows*, 12–29
POTVIN, JEAN-YVES, *see* PESANT, GENDREAU, POTVIN, AND ROUSSEAU, 12–29
POWELL, WARREN B. AND TASSIO A. CARVALHO, *Dynamic Control of Logistics Queueing Networks for Large-Scale Fleet Management*, 90–109
POWELL, WARREN B. AND TASSIO A. CARVALHO, *Real-Time Optimization of Containers and Flatcars for Intermodal Operations*, 110–126

R

ROMANIN-JACUR, GIORGIO, *see* NAVAZIO AND ROMANIN-JACUR, 268–276
ROUSSEAU, JEAN-MARC, *see* PESANT, GENDREAU, POTVIN, AND ROUSSEAU, 12–29
ROY, JACQUES, *see* NOBERT AND ROY, 295–301

S

SHENOI, RAJESH G., *see* BARNHART AND SHENOI, 221–231; BARNHART, BOLAND, CLARKE, JOHNSON, NEMHAUSER, AND SHENOI, 208–220
SHERALI, HANIF D. AND ARIEF B. SUHARKO, *A Tactical Decision Support System for Empty Railcar Management*, 306–329
SOUMIS, FRANÇOIS, *see* GAMACHE, SOUMIS, VILLENEUVE, DESROSIERS, AND GÉLINAS, 246–255; STOJKOVIĆ, SOUMIS, AND DESROSIERS, 232–245
STOJKOVIĆ, MIRELA, FRANÇOIS SOUMIS, AND JACQUES DESROSIERS, *The Operational Airline Crew Scheduling Problem*, 232–245
SUHARKO, ARIEF B., *see* SHERALI AND SUHARKO, 306–329

T

TALLURI, KALYAN T., *The Four-Day Aircraft Maintenance Routing Problem*, 43–53
TAYUR, SRIDHAR, *see* KESKINOCAK AND TAYUR, 277–294
TOTH, PAOLO, *see* CORDEAU, TOTH, AND VIGO

V

VANCE, PAMELA H., *see* NEWTON, BARNHART, AND VANCE, 330–345
VIGO, DANIELE, *see* CORDEAU, TOTH, AND VIGO
VILLENEUVE, DANIEL, *see* GAMACHE, SOUMIS, VILLENEUVE, DESROSIERS, AND GÉLINAS, 246–255

Z

ZHAN, F. BENJAMIN AND CHARLES E. NOON, *Shortest Path Algorithms: An Evaluation using Real Road Networks*, 65–73

Subject Index

A

Abstracts, 1997 Transportation Science Section Dissertation Prize Competition, 74–83
Acceptance and dispatching policies, for distribution problem, 127–141
Air cargo terminals, freight handling personnel, scheduling of, 295–301
Aircraft
  four-day maintenance, routing problem, 43–53
  jet, time share scheduling of, 277–294
Airlines
  air cargo terminals, scheduling of freight handling personnel, 295–301
  aircraft fleeting and routing, flight string models for, 208–220
  four-day aircraft maintenance, routing problem, 43–53
  long-haul crew pairing problem, approximate model and solution approach for, 221–231
  operational crew scheduling, 232–245
  preferential bidding system, Air Canada, 246–255
Air traffic
  multiple connections multi-airport ground holding problem, models and algorithms, 268–276
  optimization, combinatorial issues in, 256–267
Algorithms
  exact constraint logic programming, traveling salesman problem with time windows, 12–29
  models and, container allocation problems, in rapid transshipment shunting yard, 370–379
  multiple connections multi-airport ground holding problem, models and algorithms, 268–276
  shortest path, evaluation with real road networks, 65–73
Automobiles, carrier loading, optimization of, 174–188

B

Blocking plans, railroads, minimization of handling costs, 330–345

C

Carrier loading, automobiles, optimization of, 174–188
Combinatorial issues, air traffic optimization and, airway networks, 256–267
Container allocation problem
  empty containers, stochastic network model and solution methods for, 142–162
  rapid transshipment shunting yard, models and algorithms, 370–379

D

Decomposition, inventory routing problem with satellite facilities, 189–203
Distribution model, empty freight car management, automobile shipment, tactical decision support system, 306–329
Distribution problem, acceptance and dispatching policies for, 127–141
Driver decisions, parking space selection, probabilistic evaluation, 30–42
Dynamic empty container allocation problem, stochastic network model and solution methods for, 142–162

F

Fleet management
  aircraft routing and, flight string models for airlines, 208–220
  large-scale, dynamic control of logistics queueing networks and, 90–109
Flight string model, aircraft fleeting and routing, airlines, 208–220
Freight cars, empty
  automobile shipment, tactical decision support system for management of, 306–329
  distribution improvement, 163–173
Freight handling, personnel, air cargo terminals, scheduling of, 295–301

G

Ground holding, multiple connections multi-airport problem, models and algorithms, 268–276

H

Handling costs, minimization, railroad blocking plans and, 330–345
Hyperpaths, implicit enumeration of, in logit model for transit network, 54–64

I

Intermodal operations, real-time optimization of, containers and flatcars, 110–126
Inventory routing problems, satellite facilities and, decomposition approach, 189–203

L

Lagrangian relaxation, railway timetabling, 358–369
Logistics queueing, networks, dynamic control of, large-scale fleet management, 90–109
Logit models, implicit enumeration of hyperpaths in, transit networks and, 54–64
Long-haul crew pairing problem, airlines, approximate model and solution approach for, 221–231

M

Maritime transportation, dynamic empty container allocation problem, stochastic network model and solution methods for, 142–162
Merchandise, shipment, railroad blocking plans, minimization of handling costs, 330–345
Multiple connections multi-airport ground holding problem, models and algorithms, 268–276

N

Networks
  airway, combinatorial issues in air traffic optimization, 256–267
  logistics queueing
    dynamic control of, large-scale fleet management, 90–109

real-time optimization of intermodal operations, containers and flatcars, 110–126
real road, evaluation of shortest path algorithms, 65–73
stochastic, model and solution methods for dynamic empty container allocation problem, 142–162
transit, implicit enumeration of hyperpaths in logit model for, 54–64
transportation, queue spillovers with route choice, 3–11
urban passenger train, modeling train delays, 346–357

O

Operational airline crew scheduling problem, attempted solution, 232–245
Optimization
air traffic, combinatorial issues in, 256–267
auto-carrier loading, 174–188
empty freight car distribution, improvement of model, 163–173
railway timetabling problem, Lagrangian relaxation and, 358–369
real-time, intermodal operations, containers and flatcars, 110–126
survey of models, train routing and scheduling, 380–404

P

Pairing
crew scheduling, preferential bidding system, Air Canada, 246–255
long-haul crew, airlines, approximate model and solution approach for, 221–231
operational airline crew scheduling problem, attempted solution, 232–245
Parking strategies, probabilistic evaluation, 30–42
Passenger satisfaction, market share and, modeling urban passenger train delays, 346–357
Preferential bidding system, airlines, Air Canada, 246–255
Private jets, time-shared, scheduling of, 277–294
Probability, evaluation of parking space selection, 30–42
Programming, exact constraint logic, algorithm, traveling salesman problem with time windows, 12–29

Q

Queue spillovers, with route choice, transportation networks, 3–11

R

Railroads, blocking plans, minimization of handling costs, 330–345
Railway network, rapid transshipment shunting yard, container allocation problem, models and algorithms, 370–379
Railway transportation
empty freight car distribution, improvement, 163–173
empty railcar management, tactical decision support system for, 306–329
timetabling, Lagrangian relaxation and, 358–369
Real road networks, evaluation of shortest path algorithms with, 65–73
Routing
aircraft fleeting and, flight string models for airlines, 208–220
auto-carrier loading optimization, 174–188
choice in queue spillovers, transportation networks, 3–11
four-day aircraft maintenance and, 43–53
scheduling and, trains, survey of optimization models, 380–404

S

Satellite facilities, inventory routing problem, decomposition approach, 189–203
Scheduling
freight handling personnel, air cargo terminals, 295–301
operational airline crew and, 232–245
preferential bidding system, Air Canada, 246–255
routing and, trains, survey of optimization models, 380–404
time-shared jet aircraft, 277–294
urban passenger trains, modeling train delays, 346–357
vehicle delivery, auto-carrier loading optimization, 174–188
Set partitioning problem, operational airline crew scheduling problem as, attempted solution, 232–245
Shunting yard, rapid transshipment, railway network, container allocation problem, models and algorithms, 370–379

T

Tactical decision support system, empty freight car management, automobile shipment, 306–329
Time sharing, jet aircraft, scheduling of, 277–294
Timetabling problem, railway, Lagrangian relaxation and, 358–369
Time windows, traveling salesman problem with, exact constraint logic programming algorithm for, 12–29
Trains
containers and flatcars, real-time optimization of intermodal operations, 110–126
empty freight car distribution, improvement, 163–173
routing and scheduling, survey of optimization models, 380–404
urban passenger, modeling train delays, 346–357
Transit networks, logit model for, implicit enumeration of hyperpaths in, 54–64
Transportation networks, route choice in, queue spillovers and, 3–11
Transportation Science Section, 1997 Dissertation Prize Competition, abstracts, 74–83
Traveling salesman problem, with time windows, exact constraint logic programming algorithm for, 12–29

V

Vehicle routing problem, less-than-vehicle-load for-hire carrier, acceptance and dispatching policies, 127–141
Vehicles, large-scale fleet management, dynamic control of logistics queueing networks and, 90–109